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ABSTRACT

Reciprocal teaching is an instructional procedure designed to teach heterogeneous groups of learners, including the educationally disadvantaged, how to approach text in a thoughtful manner. In reciprocal teaching, teachers and students take turns leading discussions about shared text to achieve joint understanding through the application of the following four comprehension-fostering and comprehension-monitoring strategies: (1) question generating; (2) summarizing; (3) clarifying; and (4) predicting. Students are taught these strategies in a context that features dynamic interaction between students and teachers as well as among students. Teacher expertise is applied to diagnosis, instruction, modeling, and coaching at the same time that students are recruited to assume responsibility for their own learning from text. Transcripts of teachers' discussions with first-graders and seventh-graders are presented to illustrate reciprocal teaching. Reciprocal teaching is well-suited for use with children who have not yet mastered the decoding skills that a text may require. Suggestions are given concerning the preparation of both staff and students for participating in reciprocal discussions. Research shows that the following three factors are successful in providing sustained interest in reciprocal teaching: (1) instructional chaining and teacher-peer collaboration in inservice education; (2) alignment of instructional objectives with educational practices; and (3) an array of incentives. A 13-item list of references is included. The paper's discussant is Yolanda N. Padron in a training section entitled "The Use of Learning Dialogues in Teaching Reading Comprehension to At-Risk Students." (SLD)

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LEARNING DIALOGUES TO PROMOTE TEXT COMPREHENSION

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LEARNING DIALOGUES TO PROMOTE TEXT COMPREHENSION

Conversations with teachers responsible for the literacy instruction of elementary-aged students at risk for academic difficulty reveal the extraordinary agenda confronting these teachers. As one teacher indicated, with a mixture of apprehension and exuberance, "I want to engender an enthusiasm for reading and writing; I want to provide the kinds of experiences few of these children have had, that will enable them to have something to write about and provide the background knowledge that will be useful in their reading. And, of course, my job is also to teach all the basics." The demands on this teacher and all teachers working in classrooms of increasingly heterogeneous learners are many.

Tensions in Literacy Instruction

The conflicting demands placed upon teachers reflect a number of tensions that currently attend literacy instruction. We briefly consider three of these tensions to set the stage for describing reciprocal teaching—an instructional procedure designed to teach heterogeneous groups of learners, through the grades, how to approach learning from text in a thoughtful manner. Following our description of reciprocal teaching, we will summarize the research investigating its use with at-risk learners. Finally, we consider some of the implications of our research for school change efforts in general.

Basic Skills Versus Critical Literacy

Fueled by concerns that American students have failed to maintain the competitive edge in a world economy, the argument is made that educators ought to return to basic skills instruction. For example, *A Nation at Risk* (National Commission on Excellence in Education, 1983) urged that teachers be held accountable for students' achieving minimal levels of competence. In juxtaposition to the "back to basics" movement is the call for critical literacy, or literacy instruction that equips individuals with the tools to engage not only in the cognitive activities of thinking, reasoning, and problem solving but also in the uniquely human activities of reflection, creation, and enjoyment. Integral to the dialogue regarding critical literacy is the tenet that every child has the right to the educational opportunities to achieve this level of literacy—not simply "bright children," "normally achieving children," or the children of majority-culture or middle-class families. Such a movement demands the use of what Hilliard (1988) has referred to as "maximum-competency criteria" (p. 199). The tension between these two movements gives rise to the question "What is the place of basic skills versus higher-order skills in literacy instruction?"

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The greatest problem arising when basic skills are contrasted with higher-order skills in the reading domain is the faulty impression that not all students are entitled to instruction in both sets of skills. In fact, traditionally the trend has been to target basic skills instruction for younger and disadvantaged students while reserving the "higher-order" or reasoning skills for older and more successful students. It is this very practice that gave rise to this particular volume. However, if one maintains that the goal of literacy instruction is to prepare learners who are independent and ready to engage in life-long learning, then this "tension" between basic and higher-order skills makes little sense. Children, regardless of their age or achievement level, should be taught effective reasoning and the skills to learn from text. Let's consider what these skills might be.

One hallmark of the critical reader is a repertoire of strategies for gaining knowledge from text. These are often called the "metacognitive skills of reading" (Brown, 1980). They are the strategies that enable readers to:

- Clarify the purposes of reading.
- Make use of relevant background knowledge.
- Focus attention on the major content of the text.
- Evaluate that content to determine whether it makes sense and is compatible with prior knowledge.
- Monitor to ensure that comprehension is occurring.
- Draw and test inferences.

In this paper we discuss an instructional procedure designed to teach children to engage in the metacognitive skills of reading even before they have acquired the basic skill of decoding. We will make the point that the design of the context in which instruction occurs is as important as identifying the skills to be taught.

Natural Versus Taught Literacy

A second tension, between naturally acquired and taught literacy, raises the question "To what extent should literacy instruction be thought of as the transfer of knowledge from teacher to child?" The natural-literacy argument suggests that, given a literate environment, young children will make sense of written language in much the same natural and effortless manner in which they learn spoken language (Phelps, 1988). Supporting the natural-literacy argument is the evidence that children exposed to written language begin appropriating the literacy of their culture long before formal schooling. In addition, the natural-literacy tradition helps us to understand the diversity of practices and attitudes toward literacy displayed by children from various ethnic and socioeconomic backgrounds. However, the teacher is left dangling in the natural-literacy argument. Is it the teacher's responsibility just to provide a "literacy rich" environment where she or he merely facilitates the activity of fairly autonomous learners? Or should classrooms be places where teachers, through conscious teaching of the means to

understand text, enable learners to acquire literacy knowledge and tools? Indeed, Delpit (1988) has argued that the tenets of the natural-literacy tradition unwittingly deny African-American students entry into the "culture of power" by cutting off access to teachers as sources of knowledge. In this paper we explore how it is possible for both teachers and students to assume active roles in literacy instruction so that students profit from the relative expertise of the teacher and from one another.

Reductionist Versus Holistic/Constructivist Instruction

This final tension speaks most directly to the procedural question "In what context should literacy instruction occur?" From a reductionist perspective, the content to be learned is segmented into discrete parts, usually through an analysis of the components of a task. Each component or step is then taught to some level of mastery. In reductionist teaching, little attention is paid to the social interactions among teachers and students, and children generally work alone. Illustrative of a reductionist approach to reading strategy instruction (e.g., summarization) would be a lesson in which students are asked to underline an explicit main-idea sentence in a short and simplistic piece of text or to choose one of three titles for a short passage.

Poplin (1988), among others, has argued that a reductionist perspective has been particularly influential in the design of remedial education for children at risk. One alarming outcome of a reductionist approach is the impoverished understanding to which it can lead. We recently interviewed a number of disadvantaged and poorly achieving children in elementary school about what it takes to be a good reader. The children's responses focused on: "Get a book, open it up, try to sound out the words." "Get your reading done." "Something you look at and say the words." Their responses made sense when we observed that the teacher's reading instruction focused exclusively on decoding and seatwork.

The alternative holistic/constructivist perspective urges that tasks be presented in goal-embedded contexts; for example, in reading strategy instruction the goal would be to develop a strategic conception of reading rather than to master a series of steps of a strategy. Furthermore, the goal would be pursued through instruction conducted during meaningful reading. Finally, there would be many occasions for teacher-student and student-student interaction. The reciprocal teaching method described below was designed to provide students practice in a coherent and meaningful way, using the natural social context of discussion.

Reciprocal Teaching

Reciprocal teaching is an instructional procedure in which teachers and students take turns leading discussions about shared text. The purpose of these discussions is to achieve joint understanding of the text through the flexible application of four

comprehension strategies. Research investigating reciprocal teaching has been conducted over the past eight years by large numbers of teachers working primarily with remedial, special education, and at-risk students in first grade through secondary school.

Reciprocal teaching dialogues are "structured" with the use of four strategies: question generating, summarizing, clarifying, and predicting. The text is read in segments silently, orally by students, or orally by the teacher, depending on the decoding ability of the students. Following each segment, the dialogue leader (adult or child) begins the discussion by *asking questions* about the content of the text. The group discusses these questions, raises additional questions, and, in the case of disagreement or misunderstanding, rereads the text. The discussion then moves on to a *summary* to identify the gist of what has been read and synthesize the reading and discussion. Once again, the dialogue leader offers the initial summary and there is discussion to achieve consensus. The third strategy, *clarification*, is used opportunistically whenever there is a concept, word, or phrase that has been misunderstood or is unfamiliar to the group. Finally, the discussion leader generates and solicits *predictions* regarding upcoming content in the text. The members are guided to make predictions based on their prior knowledge of the topic and clues that are provided in the text itself (e.g., headings, embedded questions).

The particular strategies practiced in reciprocal teaching were selected for a number of reasons. First, they represent the kinds of strategic activity in which successful readers routinely engage when learning from text (i.e., self-testing understanding, paraphrasing while reading, anticipating and purpose setting, and taking appropriate measures when there has been a breakdown in understanding). Second, they provide the occasion for making explicit and visible the mental processes useful for constructing meaning from text. Finally, these strategies support a discussion within an interactive and socially supportive context in which to learn about learning from text.

The following transcript illustrates the role of the strategies in supporting the discussion. Six first-graders were participating in this discussion, five of whom were at risk for academic difficulty. This was the 27th day that they had been using reciprocal teaching, and they were reading a story entitled "Black Bear Baby." The majority of the children were not yet decoding at the level the text was written, so their teacher read the text aloud to them.

Since the children have already begun the story, their teacher begins by asking:

Mrs. D.: Boys and girls, last week we started a story about Black Bear Baby. What would be a good idea to do before we start today?

With this question, the teacher encourages the children to reflect on which strategy would be useful at this point in the reading. Several of the children suggest summarizing and several suggest predicting, since they are accustomed to predicting before they begin reading. The group collaborates on a summary of what has occurred thus far, the

children adding the bits they remember while the teacher weaves the bits into a coherent whole. The group is then ready to begin reading. The teacher asks Margo to be the "teacher," the discussion leader.

Mrs. D.: [reading]: While the mother bear ate, the cubs romped and tumbled and somersaulted, but most of all they liked to wrestle. Baby bear hid behind a tree, then jumped out, pouncing on his sister. The bear cubs rolled over and over growling fiercely. Baby bear was bigger than his sister and he began to play too rough. His sister jumped onto a tree trunk and climbed quickly upward.

Kendra: [clarifying] What's rough?

Mara: Like you say rough texture.

Mrs. D.: Well, that's one kind of rough.

Robert: The other one is like they beat you up.

Mrs. D.: That's another kind of rough. Let me read the sentence and see which one you think it is. If it's the way you feel, the texture, or the beating up part.

In this portion, the teacher, rather than define the word *rough*, invites the children to return with her to the text and use the context of the sentence to clarify the meaning of *rough*. She rereads the appropriate sentence.

Mara: It's the kind he [referring to Robert] means.

Mrs. D.: The punching and hitting, playing too hard. Okay!

Mrs. D. then continues reading. The story goes on to describe how with all the roughhousing, baby bear manages to fall off the tree in which he is chasing his sister and splashes into the cold water below. The paragraph concludes with a description of the mother rescuing and drying off her cub.

Mrs. D.: Now, I gave you a lot of information, so you might want to ask more than one question.

Margo: What did he lay in? [in reference to the skunk cabbage leaves in which the cub rests after his spill]

Mara: It's true you could get an answer but is that gonna get an answer from more than one people? Probably it's just gonna get an answer from one and there's better questions you could ask.

Mara's comment refers to the discussions that Mrs. D. has been having with the students about thinking not only of questions that ask for details but also questions that have many answers and get the group thinking and talking.

Mrs. D.: Let's go ahead, though, and answer Margo's question.

Margo: Mara?

Mara: The cabbage leaves.

Kinata: Uh-uh, it wasn't no cabbage leaves.

Kinata is confused here because the text referred to them as "skunk cabbage leaves."

Mrs. D.: Remember what they called it: skunk cabbage. Margo, do you understand what Mara was saying? Can you think of a question that could get a whole bunch of answers?

Mara: Like if you would like to see if everybody's knows what's happening in the story . . . you could ask . . . what's happening in the story here?

Mrs. D.: Let me help a little bit. What are the cubs doing while the mother is away? [Here the teacher models an appropriate question.] That might get a whole bunch of answers.

The children reconstruct the number of things that have occurred since the mother bear left, including baby bear's mishap.

Robert: He went bang. He was not real hurt 'cause water isn't hard because water . . . you can land on it and splash around.

Mara: You know it kind of told you what time of year it was because it told you it went "splash," because if it was this time of year [February], I don't think he'd splash in the water, I think he'd crack.

Margo: [summarizing] This part of the story told us about baby bear and sister bear wrestling.

Mrs. D.: Tell us a bit more; there's an important thing you left out.

The children then add other events that transpired in this part of the story, including the fall and baby bear's rescue.

Mrs. D.: Okay, now that's a good summary—and good questions from all of you. You had good ideas. I also like the way we have been clarifying those words. Okay, Travis, you're our next teacher. Have we any predictions we can make at this point?

The children discuss some possible events in the story, such as other trouble that baby bear might get into, other ways in which the mother cares for her cubs, and how the cubs grow up.

In addition to illustrating the role of the strategies in reciprocal teaching dialogues, this transcript reveals how the teacher supports the children's engagement in the dialogues. In reciprocal teaching instruction, the teacher assumes many roles:

- Modeling competent use of the strategies for the purpose of constructing meaning and monitoring comprehension.
- Engaging in on-line diagnosis of the students' emerging competence with the comprehension activity.
- Supporting students' efforts to understand the text.
- Pushing for deeper understanding.
- Consciously releasing control of the dialogue to the students as they demonstrate the ability to assume responsibility for their own learning.

The metaphor of a "scaffold" has been used to capture the role of the teacher in this instruction, providing adjustable and temporary support that can be removed when no longer necessary.

To contrast the nature of the dialogue occurring among first- and seventh-graders, a second excerpted transcript is provided below. In this discussion, remedial reading students are discussing a paragraph describing the layers of the earth in a passage about the formation of volcanoes:

The text concludes, "Below the crust is a large layer called the mantle. It is a much heavier layer. The part of the mantle just below the crust is a strange place. Pressure there is very great and the temperatures are very high."

Doug:	[leading the discussion and summarizing] This told about the second layer of the earth, the one that is under the first one.
Sara:	The one under the crust.
Doug:	Yeah, the crust. It told about what it is like, like how heavy it is and what the temperature is. My prediction is that they will tell us about the next layer because this picture shows another one, and I'll bet it will be cooler because dirt gets colder when you dig.
Chris:	That doesn't make sense to me because, because as it's been goin' down, it's been gettin' hotter.
Stephanie:	And heavier too.
Chris:	Pretty soon, we'll get to the gooey stuff and it's real hot.
Sam:	That's the lava.
Ms. M.:	Well, let's read on and see who's right in their predictions. What will the next layer be like? Who will be the teacher?

At the seventh-grade level, the students are able to perform more independently of the teacher; they can independently return to the text, as Chris does in this example, to support their ideas. There are more examples at this level of students bringing background knowledge (as Doug does) to the text. Finally, students, like Sara, can assist their peers.

Preparing Teachers to Use Reciprocal Teaching

For many teachers, learning dialogues are a new addition to their instructional repertoires. Hence, a critical step in the implementation of reciprocal teaching has been the preparation of teachers. In collaboration with the teachers with whom we have worked, we found the following procedure useful.

First, the teachers are encouraged to reflect on and discuss their current instructional goals and activities related to improving students' comprehension of text. Similarities and differences between the processes and outcomes of their current programs and reciprocal teaching are highlighted. For example, many teachers with whom we have worked already engage in strategy instruction; but the differences between teaching strategies as isolated skills (e.g., teaching summarization by asking children to read brief pieces of text and select the best of three main-idea sentences) and teaching strategies for the purpose of self-regulation in reading (e.g., summarizing in one's own words naturally occurring text) need to be discussed and demonstrated. This period of reflection is important; for some teachers, reciprocal teaching initially lacks a degree of face validity. For example, we have had teachers who believe that their first responsibility is to teach decoding. For other teachers, listening comprehension is synonymous with teaching children to follow directions. It is important that teachers reconcile their beliefs with the basic tenets of reciprocal teaching. Otherwise, naturally enough, teachers resist or, at a minimum, experience difficulty with implementation and adapt the program to accommodate the more familiar means and outcomes of instruction.

Following this opportunity for self-reflection, the theory informing the design of reciprocal teaching is introduced. The following points are emphasized:

- The acquisition of the strategies is a joint responsibility shared by the teacher and students.
- The teacher initially assumes major responsibility for instructing these strategies (i.e., the teachers "think aloud" about how they generate a summary, what cues they use to make predictions, how rereading or reading ahead is useful when encountering something unclear in the text) but gradually transfers responsibility to the students.
- All students are expected to participate in this discussion; that is, all students are to be given the opportunity to lead the discussion. The teacher enables the students' successful participation by supporting them in a variety of ways—for

example, by prompting, providing additional instruction, or altering the demand on the student.

- Throughout each day of instruction, there is a conscious attempt to release control of the dialogue to the students.
- The aim of reciprocal teaching is to construct the meaning of the text and to monitor the success with which comprehension is occurring.

Staff development continues by showing demonstration tapes, conducting sessions in which teachers role-play reciprocal teaching dialogues, examining transcripts to discuss some of the finer points of the dialogue (e.g., supporting the engagement of children in considerable difficulty), and conducting a demonstration lesson with teachers and researchers co-teaching. Following these formal sessions, additional coaching is provided to the teachers as they implement the dialogues in their respective settings.

Preparing Students to Use Reciprocal Teaching

Introduction of students to reciprocal teaching begins with a discussion regarding its purpose as well as its features (i.e., the dialogue structured by the strategies and the taking of turns in leading the discussion). The students are then introduced to each of the strategies with teacher-led activities. For example, questioning is introduced by discussing the role that questions play in our lives, particularly our school lives. The students then generate information-seeking questions about everyday events. This activity permits teachers to evaluate how well their students can frame questions. The students then read or listen to simple informational sentences about which they are to ask a question. Next, the students evaluate questions that are written about short segments of text; and finally, the students generate their own questions from segments of text. A similar sequence of activities occurs for each of the strategies.

These activities are included principally to introduce the students to the language of the dialogues and to provide the teacher with diagnostic information suggesting how much support individual children might need in the dialogue. No more than two days of instruction are spent on introducing each of the strategies in this fashion before beginning the dialogues.

In our research, reciprocal teaching has been implemented with small groups, generally ranging from 6 to 8 students, although junior high teachers have handled groups as large as 17. The dialogues have been conducted over a period of 20 to 30 consecutive days. The texts were selected according to the grade level of the students. Typically, the texts were drawn from readers, trade books for children, and content area texts (particularly with middle school students, who often find these texts difficult to learn from).

Evaluating Reciprocal Teaching Instruction

The majority of the research on reciprocal teaching has been conducted in reading and listening comprehension instruction by general, remedial, and special educators. Since 1981, when the research program began, nearly 300 middle school students and 400 first- to third-graders have participated in this research. The instruction was designed principally for students determined to be at risk for academic difficulty or already identified as remedial or special education students. Typically, the students involved in our research fall below the 40th percentile on nationally normed measures of achievement. The students entering these studies scored approximately 30% correct on independent measures of text comprehension. Our criterion for success was the attainment of an independent score of 75% to 80% correct on four out of five consecutively administered measures of comprehension, assessing recall of text, ability to draw inferences, ability to state the gist of material read, and application of knowledge acquired from the text to a novel situation. Using this criterion, approximately 80% of both the primary and middle school students have been judged successful. Furthermore, these gains have been observed to endure for up to six months to a year following instruction (Brown & Palincsar, 1982, 1989; Palincsar & Brown, 1984, 1989).

In the most current reciprocal teaching research, rather than involving an array of unrelated texts, the dialogues were used with primary-grade students to learn simple science concepts related to animal survival themes such as camouflage, mimicry, and protection from the elements. These themes were represented across the texts with which the groups were working. The use of an array of texts related to specific themes permitted the students to acquire and use their knowledge of these themes over time, an opportunity that was not available when the students were using random texts and one that is generally not available in most reading instruction. The students explained and justified their understandings of these themes during the course of the discussions. Twenty days of such discussion led to dramatic improvement in both comprehension processes (as assessed by the independent comprehension measures) and thematic understanding (as assessed by the content of the discussions as well as independent measures of the children's content knowledge). The children were asked to sort pictures of animals into the six themes that had been discussed during the course of instruction. Whereas their initial scoring was based on the physical characteristics of the animals, after the dialogues, the students sorted the animals correctly, by theme, 85% of the time. In addition, when presented with a novel example, they could identify the theme and justify how that animal exemplified the theme. Reciprocal teaching enabled the children both to learn a body of coherent and useful knowledge and to acquire a repertoire of strategies useful for learning content on their own.

The practical implications of these outcomes are worthy of note. At the middle school level, remedial reading teachers have reported dismissing larger numbers of students from their caseloads following involvement in reciprocal teaching than in any previous year. At the primary level, teachers have reported that a number of students,

whom they had initially regarded as at risk, demonstrated greater knowledge and skill in the dialogues than had been observed previously in the classroom. This observation makes sense when one considers that historically these children seldom had occasion to bring their own knowledge to bear in the classroom or to demonstrate the leadership and helping skills displayed during the dialogues, since instruction was focused almost exclusively on decoding.

Anecdotal evidence of internalization on the part of the primary children is provided by teachers' reports that the children begin to use the strategies employed in the dialogue, unprompted, in contexts other than the listening comprehension lessons. For example, one teacher reported that children engaged in the same discourse during small-group reading and asked for clarifications during whole-class discussions.

Decoding-based curricula for at-risk children have been defended on the grounds that these students, often from economically deprived homes, come to school unfamiliar with the basic skills of decoding. Although we have not systematically collected data on the change in the decoding levels of the students in our research, there is evidence from the very successful Kamehameha Early Education Program that at-risk Native Hawaiian children placed in a heavily comprehension-based program (one-third of instructional time is devoted to decoding, while the remainder is focused on comprehension) show greater gains on both comprehension and decoding measures than students placed in a program emphasizing decoding (Calfee et al., 1981). In our own research, we have observed that as children learn to approach text to learn new information and make meaning of the text, the array of strategies they use to decode words increases to include not only phonemic analysis but also semantic analysis, focusing on determining what words make sense, and schematic analysis, or the use of background knowledge to figure the text out. These are levels of text analysis that provide children with considerable leverage in reading. We are not advocating that decoding instruction be replaced by comprehension instruction; indeed, there is considerable evidence to support the effectiveness of decoding instruction with young children. Rather, we are advocating that when decoding is practiced, it be subordinated to the primary activity of understanding the text.

Before concluding our discussion of the outcomes of reciprocal teaching, we want to address the issue of motivation. It is important to note that the students involved in our research have often been characterized as displaying motivation problems. In fact, particularly at the middle school and junior high levels, teachers initially have expressed concern that the behavior problems in their classes would preclude the use of an instructional procedure like reciprocal teaching. Contrary to their reservations, the teachers later reported that students generally were highly engaged in the discussions and acquired a newfound appreciation for the responsibilities attending the role of teacher (as they assumed the role of dialogue leader). The responsiveness of the students further supports research suggesting that motivation is fostered when students

are taught strategies to regulate their own learning activity (Paris & Oka, 1986) and when this instruction is conducted in social contexts that invite and depend on their engagement.

Implications for Implementation

Each of the instructional models discussed in this volume represents a departure from current educational practice. Therefore, it is necessary to consider how one goes about introducing, implementing, and sustaining interest in alternative approaches to the education of children at risk. In the districts in which we have conducted research, three factors have been successful in providing sustained interest in reciprocal teaching:

- The use of instructional chaining and teacher-peer collaboration for inservice education.
- The alignment of instructional objectives with assessment practices.
- An array of incentives.

Earlier in this paper we described the initial staff development model that was used to prepare teachers to engage in reciprocal teaching, including the use of teacher reflection, discussion of theoretical underpinnings, demonstration, modeling, role playing, team teaching, and coaching. Instructional chaining refers to the development of a network of teachers throughout the districts in which reciprocal teaching has been investigated. Remedial-reading and general educators who had the longest history with the research projects conducted inservice sessions, often with the research team. In addition, these teachers were available to provide demonstration lessons in their own classrooms as well as in others' classrooms. Before the teachers began this work, their principals attended information sessions; they also attended and participated in the inservice activities. In one district, over a two-year period, approximately 150 teachers in 23 buildings participated in dissemination efforts (Palincsar, Ransom, & Derber, 1988/1989).

In addition to the initial staff development, the teachers met in peer support groups to discuss the progress of their classes and to engage in joint problem solving regarding the difficulties they encountered. By sharing transcripts of different discussions of the same story, the teachers learned from one another.

Equally important is the compatibility of assessment instruments with program goals. If teachers continue to be held accountable mainly for the teaching of the basic and isolated skills of reading, it is foolhardy to think that real change will occur in the instructional opportunities offered to children at risk. With the leadership of the remedial reading staff, the district in which the majority of reciprocal teaching research has been conducted developed a new reading achievement instrument with a number of items designed to measure comprehension holistically, as well as to measure the four strategies of reciprocal teaching. We have been struck repeatedly by the importance of an alignment between assessment and instructional goals.

Finally, in addition to providing well-deserved official recognition for the hard work of developing and testing new ideas, districts have provided support in the form of release time for inservice sessions and substitutes to encourage classroom visits among teachers.

Conclusion

In this paper we have argued that, regardless of their status as decoders, all students need instruction and guided practice in the comprehension activities that are the basis of effective reading. Equally important, all students should be helped to understand that the primary goal of reading is comprehension and that there are manageable and concrete activities that they can master to improve their comprehension.

We have described an instructional procedure that has been successful in improving both the listening and reading comprehension of students at risk. In reciprocal teaching, students are taught four comprehension-fostering and comprehension-monitoring strategies for understanding text. They are taught these strategies in a context that features dynamic interaction between students and teachers as well as among students, a feature shared by all the instructional models presented in this volume. Teacher expertise is applied to diagnosis, instruction, modeling, and coaching at the same time that students are recruited to assume increasing responsibility for their own learning from text.

The following points are central to this paper:

- All students are entitled to literacy instruction that teaches not only the enabling skills of decoding but also the functional, informational, and knowledge-enhancing uses of reading.
- Strategy instruction is a successful means of teaching students how to experience the multiple goals of reading.
- Strategy instruction is best conducted in a context that maintains the integrity of reading activity and provides guided and authentic experiences in reading for meaning.
- Reciprocal teaching is one model of instruction illustrating how children who have yet to master decoding skills can still engage successfully in meaningful learning from text.
- The support that we routinely advocate for students must also be provided to teachers as they learn strategic concepts and approaches to reading.

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DISCUSSION: THE USE OF LEARNING DIALOGUES IN TEACHING READING COMPREHENSION TO AT-RISK STUDENTS

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For the past 10 years I have been working as a classroom teacher, university professor, and researcher in the field of bilingual education. More specifically, I have taught in inner-city bilingual classrooms and have taught preservice and inservice teachers how to work effectively with bilingual students. I have always been particularly interested in improving the education of linguistically and culturally diverse students, who have traditionally not been successful in schools. In my work with at-risk limited-English-proficient students, one instructional intervention that I have used in the classroom and have also found to be empirically effective in improving the comprehension of text is reciprocal teaching, the instructional approach described in the paper by Palincsar and Klenk, "Learning Dialogues to Promote Text Comprehension."

The purpose of the present paper is to evaluate the applicability of this approach for at-risk students. In the first section of this paper, the benefits of reciprocal teaching for at-risk classrooms will be discussed. The second part will examine issues that need to be considered when implementing this program with at-risk students.

Benefits of Reciprocal Teaching for At-Risk Students

Reciprocal teaching is one of the most frequently cited approaches to cognitive strategy training. The procedure takes place in a cooperative instructional environment where the teacher and students engage in a dialogue. In general, studies of reciprocal teaching have found that strategies can be taught successfully to low-achieving students and that once these are learned, their use increases reading achievement (Lysynchuk, Pressley, & Vye, 1990; Padron, 1985; Palincsar & Brown, 1984, 1985).

Palincsar and Klenk describe three tensions, or issues, that confront the reading instructor:

- Whether to teach basic or higher-order (critical-literacy) skills.
- Whether to teach literacy or let it develop naturally.
- Whether to employ reductionist or holistic/constructivist instructional approaches.

Reciprocal teaching procedures resolve these tensions in ways that are conducive to promoting the improvement of reading comprehension for disadvantaged students, particularly those who are culturally and linguistically diverse.

Instead of choosing *between* teaching basic and higher-order thinking skills, reciprocal teaching addresses *both* and provides a method for working on higher-level strategies of comprehension before students are fully able to decode. As the authors point out, the text on which comprehension strategies will be practiced may be read aloud by the teacher as an alternative to silent or oral reading by students. This technique can be very useful when teaching students who participate in Chapter 1 programs.

Students participating in compensatory education programs come primarily from culturally and linguistically diverse backgrounds (Slavin, 1989). Students, in these classrooms, therefore, may experience a great deal of difficulty with the language in most texts. Having the teacher read the text provides students with the opportunity to learn the comprehension strategies of asking questions, summarizing, clarifying, and making predictions, without having to wait until they learn to decode. In my work with limited-English-proficient students, I have found that the poorest readers tend to benefit the most from this approach (Padron, 1985). Even though these students may need assistance in decoding, they are able to learn comprehension skills while also learning to decode.

As discussed by Palincsar and Klenk, reciprocal teaching resolves the tension between "natural and taught literacy" in favor of active instruction, in which students become actively involved in teaching. I have found this to be an important benefit when implementing the reciprocal teaching procedure. Students not only assume a share of responsibility for learning but also become genuinely concerned with the teacher's role. As students participate in this strategy instruction approach, they acquire an appreciation for the teacher's role through their own experience as dialogue leader (Padron, 1989). As a result, I have found that behavior problems are virtually eliminated.

Finally, I think that the most valuable aspect of reciprocal teaching for at-risk students is its use of a holistic/constructivist approach. Lower-achieving students have often been denied the opportunity to learn higher-level thinking skills because schools have applied a reductionist approach in which students must demonstrate mastery of basic or lower levels of knowledge and skill before they can be taught higher-level skills (Foster, 1989). As indicated by the authors, the reductionist (discrete skills) perspective is particularly dominant in at-risk classrooms. Reflecting the teaching they have received, students tend to think of reading as being a series of distinct parts rather than a process of developing a strategic conception of the meaning of what they are reading.

In interviews with at-risk students, I have found that when they are asked what are good strategies for comprehending text, they comment: "looking hard at the words," "saying words over and over again," "reading slowly [or carefully]." Interestingly, these comments are similar to those reported by Palincsar and Klenk. In interviews with teachers of at-risk students and in classroom observations, I have found that much of reading instruction for these students focuses more on decoding than on

comprehension. Understandably, during my research, students have often questioned why they are being asked about what they do to comprehend text. Students in my studies, for example, have stated: "No one has ever asked me how I read." "Our teacher never asks us to think about how we read."

In my work with Hispanic students, I have found that the teacher-student and student-student interaction provided by reciprocal teaching is particularly beneficial. The limited-English-proficient students involved in the reciprocal teaching programs in my research looked forward to reading instruction and were more willing to extend the reading period than were students participating in reading taught from a traditional reductionist perspective. Students seem particularly to enjoy the interactive social environment provided by reciprocal teaching.

Concerns About Meeting the Needs of At-Risk Students

Although studies using reciprocal teaching procedures continue to find positive results (e.g., Lysynchuk, Pressley, & Vye, 1990), few studies have investigated the use of this procedure with culturally and linguistically diverse students (Waxman, Padron, & Knight, in press; Padron, 1989). In developing strategy instruction for students who participate in Chapter 1 programs, special consideration should be given to cultural and linguistic differences. Students participating in Chapter 1 programs are generally low-ability students from low-income families. These children may be enrolled in migrant and bilingual education programs. Consequently, Chapter 1 programs usually include a disproportionate percentage of blacks and Hispanic students (Heller, Holtzman, & Messick, 1982; Slavin, 1989). Furthermore, cultural and linguistic differences should be considered because the successful use of some strategies appears to be influenced not only by age and ability but also by cultural differences (Waxman, Padron, & Knight, in press). In this section of the paper, I will address several issues that need to be considered when implementing reciprocal teaching with at-risk students.

Cultural Sensitivity

Prior knowledge plays a powerful role in comprehension and learning. Students participating in reciprocal teaching are asked to make predictions to activate their prior knowledge. Differences in students' prior knowledge are likely to affect the way they respond to instruction (Stein, Leinhardt, & Bickell, 1989). For example, expert comprehenders generally try to relate new material to personal experience (Campione & Armbruster, 1985). Differences in background knowledge or experience due to cultural differences may be an important source of variation for strategy use and outcomes (Steffenson, Joag-Dev, & Anderson, 1979). A student who has no prior knowledge about the topic being discussed may not be able to apply strategies such as summarizing, predicting, or asking questions (Stein et al., 1989).

In a classroom where students not only are of low ability but also have a culturally diverse background, strategy instruction thus becomes extremely complex. If students are young, of low ability, or culturally diverse, they may not be able to tap prerequisite prior knowledge without help and may need more teacher-directed activity to help them accomplish the linkage.

The lack of prior knowledge for some at-risk students, however, can be dealt with by providing reading materials that deal with problems universal to all cultures. That is, texts can be provided which address issues that all students can relate to (e.g., "protection from the elements"). The most recent reciprocal teaching research, as described by Palincsar and Klenk, uses this kind of universal theme and develops it over a whole series of related texts. In this way, students have the opportunity to develop the background knowledge they need for effective implementation of comprehension strategies.

Another approach teachers can employ is to use culturally relevant texts. Using this kind of material increases the likelihood that students will have needed background knowledge and also addresses a second key issue—student affect. As a result of their lack of success in school, many at-risk students have a low self-concept and come to believe that they are incapable of learning. Consequently, strategy instruction needs to include techniques that address students' affective needs (Coley & Hoffman, 1990). Although reciprocal teaching has generally been conducted with students who are not highly motivated, the program, as described by Palincsar and Klenk, does not address affective variables explicitly. I have concerns about the suitability of a strategy instruction program that does not address self-concept for at-risk students who are culturally and linguistically diverse.

I would encourage combining reciprocal teaching approaches with the fostering of students' self-concept by incorporating the students' culture into the classroom. This requires providing reading materials that are culturally relevant, meaning that they:

- Include ethnic characters
- Deal with universal issues
- Include settings and experiences with which students can identify.

By incorporating the students' culture in the classroom environment, teachers can help students feel better about themselves and their place in school.

Teacher Training and Reciprocal Teaching

From the teachers' point of view, reciprocal teaching procedures are very demanding. Teachers of children who are at risk are presented with a complex classroom situation. First, teachers must diagnose students' needs, discriminating the strategies that they do know from those that they do not know or use inappropriately. In

addition, teachers in these classrooms must deal with different cultural backgrounds. In many instances, teachers are also having to address different levels of language proficiency. The variety of languages found in these classrooms and the difficulty of assessing the students' level of proficiency can make diagnosis of strategies difficult. It is easy to confuse lack of language proficiency with the absence of an appropriate comprehension strategy. Diagnostic instruments need to be developed to help teachers readily diagnose students' strategy use.

Coupled with the difficulty of diagnosis is the fact that the majority of instruction in Chapter 1 programs tends to be delivered by instructional specialists outside the regular classroom setting. Although these specialists tend to have a higher educational level than the regular classroom teacher, they also tend to have less experience (Archambault, 1989). In my experience with teachers who teach in at-risk classrooms, I have found that novice teachers are often overwhelmed by the complexity of their classroom. To deal with this complex classroom environment, teachers tend to "problem minimize"—that is, to redefine their goals in a way that reduces the amount of effort required. Problem minimizing may have a greater probability of occurring in classrooms where students are disadvantaged and/or culturally and linguistically diverse. If students, for example, have not been exposed to some of the experiences or prior knowledge required by the content, teachers may problem minimize by deciding not to teach the content or teaching the content only to "those who know." As a result, there may be an overemphasis on repetition of content through drill and practice (Knapp & Shields, 1990; Lehr & Harris, 1988; Levin, 1987).

The manner in which teachers were trained is another important key to the success of reciprocal teaching. Palincsar and Klenk describe extensive inservice preparation for reciprocal teaching in which teachers were exposed to the variety of approaches used in the program (e.g., modeling, coaching, role playing, discussions). This is extremely important in training teachers to implement reciprocal teaching, since many teachers have not been exposed to strategy training procedures. Furthermore, as indicated by Palincsar and Klenk, many teachers do not believe that strategy instruction is beneficial, particularly for low-achieving students. Teacher preparation may need to address teachers' beliefs that these students are not able to benefit from strategy instruction. In my research, I have encountered teachers who have commented, "This type of instruction may be fine for high-ability students, but not for my low-ability students." Demonstration of the effectiveness of strategy instruction for low-ability students is needed to motivate these teachers to make the effort to acquire and practice reciprocal teaching techniques.

Finally, teacher training in the implementation of reciprocal teaching must be carefully orchestrated. Palincsar and Klenk point out in their paper that for many teachers reciprocal teaching is a new and different approach from anything that they have been exposed to in their teacher preparation programs. Teachers, for the most

part, have been trained with the direct instructional approach in which the teacher has a dominant role. Reciprocal teaching calls for teachers to assume a very different, "coaching" role.

Training teachers who teach at-risk students in a reciprocal teaching procedure may require more than training in how to implement strategy instruction. I have suggested that teachers also receive instruction on how to address the cultural and linguistic differences represented in their classrooms. For example, teachers may need to participate in cultural awareness programs. In this type of training, teachers can be provided with information about the students' cultures. Learning about these cultures can help eliminate some of the stereotypical beliefs that linguistically and culturally different students cannot learn.

Conclusion

This paper has addressed several issues in the use of reciprocal teaching with at-risk students. First, the suitability of the program for at-risk students was addressed. Considering the evidence of the positive effects that reciprocal teaching has had in increasing students' reading comprehension, this procedure appears to be a promising one for use with at-risk students.

The research on cognitive strategies strongly suggests that the approach can provide a useful technique for enhancing reading comprehension of at-risk students. Giving students models of appropriate cognitive reading strategies and practice in applying them can help students become better readers. Postponing instruction in the use of cognitive reading strategies may mean that children develop habits which will make later comprehension instruction difficult (Wilson & Anderson, 1985).

Second, the suitability of reciprocal teaching for at-risk populations was assessed. The teaching approach appears thoroughly compatible with efforts to incorporate students' culture in the classroom and to foster positive self-concepts. However, these issues have been given little attention in many implementation efforts. To make reciprocal teaching more appropriate for disadvantaged students, cultural sensitivity and carefully structured staff development procedures are crucial.

In conclusion, further research is needed in designing instructional programs that address not only the cognitive needs of low-achieving students but also their self-concept. Such instruction would help ensure that students not only acquire an acceptable level of achievement but also develop the attitudes and thinking skills that are necessary for academic success.

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